

WHAT IS CLAIMED IS:

1           1. A display control system for data control during  
2 screen display operations, the system comprising:  
3           a pointing device that indicates a position on a screen  
4 of a display unit; and  
5           a deleting unit that successively deletes first elements  
6 of data from a specified area of the screen and rearranges  
7 second elements of data remaining in the specified area to  
8 provide an appearance that the second elements of data are  
9 gradually withdrawn from the specified area at the indicated  
10 position,

11           said deleting unit including a first density control unit  
12 that, in accordance with successively deleting the first  
13 elements of data, reduces a density of a second element of  
14 data remaining in the specified area by decreasing a component  
15 of the second element of data, while said second elements of  
16 data are being rearranged.

1           2. The display control system as claimed in claim 1,  
2 further comprising:  
3           a completion indicating unit that displays a  
4 predetermined image at a specified position on the screen when  
5 all the second elements of data have been deleted as first  
6 elements of data.

1           3. A display control system for data control during  
2 screen display operations, said system comprising:  
3           a pointing device that indicates a position on a screen  
4 of a display unit; and  
5           a deleting unit that successively deletes first elements  
6 of data from a specified area of the screen and rearranges  
7 second elements of data remaining in the specified area to  
8 provide an appearance that the second elements of data are

9 gradually withdrawn from the specified area at the indicated position,  
10 said deleting unit including a first speed control unit  
11 that controls respective time intervals to be successively  
12 shorter during which the first elements are successively  
13 deleted.

1 4. The display control system as claimed in claim 3,  
2 further comprising:  
3 a completion indicating unit that displays a  
4 predetermined image at a specified position on the screen when  
5 all the second elements of data have been deleted as first  
6 elements of data.

1 5. A computer-readable medium encoded with a program for  
2 controlling data display operations, said program comprising  
3 the functions of:

4 detecting a position on a screen of a display unit, the  
5 position being indicated by a pointing operation;

6 successively deleting first elements of data from a  
7 specified area of the screen, and rearranging second elements  
8 of data remaining in the specified area, to provide an  
9 appearance that the second elements of data are gradually  
10 withdrawn from the specified area at the indicated position;  
11 and

12 reducing, in accordance with successively deleting the  
13 first elements of data, the density of a second element of  
14 data remaining in the specified area by decreasing a component  
15 of the second element of data, while said second elements of  
16 data are being rearranged.

1 6. The computer-readable medium as claimed in claim 5,  
2 wherein said program further comprises the function of  
3 displaying a predetermined image at a specified position on  
4 the screen when all the second elements of data have been  
5 deleted as first elements of data.

1           7. A computer-readable medium encoded with a program for  
2 controlling data display operations, said program comprising  
3 the functions of:

4           detecting a position on a screen of a display unit, the  
5 position being indicated by a pointing operation;

6           successively deleting first elements of data from a  
7 specified area of the screen, and rearranging second elements  
8 of data remaining in the specified area, to provide an  
9 appearance that the second elements of data are gradually  
10 withdrawn from the specified area at the indicated position;  
11 and

12           controlling respective time intervals to be successively  
13 shorter during which the first elements of data are  
14 successively deleted.

1           8. The computer-readable medium as claimed in claim 7,  
2 wherein said program further comprises the function of  
3 displaying a predetermined image at a specified position on  
4 the screen when all the second elements of data have been  
5 deleted as first elements of data.

1           9. A data processing apparatus using a computer  
2 specifically configured by execution of a program encoded on a  
3 computer-readable medium, the program controlling data display  
4 operations and including the functions of:

5           detecting a position on a screen of a display unit, the  
6 position being indicated by a pointing operation;

7           successively deleting first elements of data from a  
8 specified area of the screen, and rearranging second elements  
9 of data remaining in the specified area, to provide an  
10 appearance that the second elements of data are gradually  
11 withdrawn from the specified area at the indicated position;  
12 and

13           reducing, in accordance with successively deleting the  
14 first elements of data, the density of a second element of  
15 data remaining in the specified area by decreasing a component

16 of the second element of data, while said second elements of  
17 data are being rearranged.

1 10. The data processing apparatus as claimed in claim 9,  
2 wherein the program further comprises the function of  
3 displaying a predetermined image at a specified position on  
4 the screen when all the second elements of data have been  
5 deleted as first elements of data.

1 11. A data processing apparatus using a computer  
2 specifically configured by execution of a program encoded on a  
3 computer-readable medium, the program controlling data display  
4 operations and including the functions of:

5 detecting a position on a screen of a display unit, the  
6 position being indicated by a pointing operation;

7 successively deleting first elements of data from a  
8 specified area of the screen, and rearranging second elements  
9 of data remaining in the specified area, to provide an  
10 appearance that the second elements of data are gradually  
11 withdrawn from the specified area at the indicated position;  
12 and

13 controlling respective time intervals to be successively  
14 shorter during which the first elements of data are  
15 successively deleted.

1 12. The data processing apparatus as claimed in claim  
2 11, wherein the program further comprises the function of  
3 displaying a predetermined image at a specified position on  
4 the screen when all the second elements of data have been  
5 deleted as first elements of data.

1  
2 13. A display controller for data control during screen  
3 display operations, the controller comprising:

4 a deleting unit that successively deletes first elements  
5 of data from a specified area of a display screen and  
6 rearranges second elements of data remaining in the specified

7 area to provide an appearance that the second elements of data  
8 are gradually withdrawn from the specified area at a position  
9 indicated by a pointing device,

10 said deleting unit including a first density control unit  
11 that, in accordance with successively deleting the first  
12 elements of data, reduces a density of a second element of  
13 data remaining in the specified area by decreasing a component  
14 of the second element of data, while said second elements of  
15 data are being rearranged.

1 14. The display controller as claimed in claim 13,  
2 further comprising:

3 a completion indicating unit that displays a  
4 predetermined image at a specified position on the screen when  
5 all the second elements of data have been deleted as first  
6 elements of data.

1 15. A display controller for data control during screen  
2 display operations, the controller comprising:

3 a deleting unit that successively deletes first elements  
4 of data from a specified area of a display screen and  
5 rearranges second elements of data remaining in the specified  
6 area to provide an appearance that the second elements of data  
7 are gradually withdrawn from the specified area at a position  
8 indicated by a pointing device,

9 said deleting unit including a first speed control unit  
10 that controls respective time intervals to be successively  
11 shorter during which the first elements are successively  
12 deleted.

1 16. The display controller as claimed in claim 15,  
2 further comprising:

3 a completion indicating unit that displays a  
4 predetermined image at a specified position on the screen when  
5 all the second elements of data have been deleted as first  
6 elements of data.

1        17. A display controller for data control during screen  
2 display operations, said controller comprising:

3        a deleting unit that successively deletes first elements  
4 of data from a screen of a display unit; and

5        a density control unit that, in accordance with  
6 successively deleting the first elements of data, reduces a  
7 density of a second element of data remaining on the screen by  
8 decreasing a component of the second element of data.

1        18. A display controller for data control during screen  
2 display operations, said controller comprising:

3        a deleting unit that successively deletes elements of  
4 data from a screen of a display unit; and

5        a speed control unit that controls respective time  
6 intervals to be successively shorter during which the elements  
7 of data are successively deleted.

8  
9        19. A display controller for data control during screen  
10 display operations, said controller comprising:

11       a restoring unit that successively restores first  
12 elements of data to a screen of a display unit; and

13       a density control unit that, in accordance with  
14 successively restoring the first elements of data, increases a  
15 density of a second element of data previously restored to the  
16 screen by increasing a component of the second element of  
17 data.

1        20. A display controller for data control during screen  
2 display operations, said controller comprising:

3        a restoring unit that successively restores elements of  
4 data to a screen of a display unit; and

5        a speed control unit that controls respective time  
6 intervals to be successively longer during which the elements  
7 of data successively restored to the screen.

1           21. A computer-readable medium encoded with a program  
2     for controlling data display operations, said program  
3     comprising the functions of:

4           successively deleting first elements of data from a  
5     screen of a display unit; and

6           reducing, in accordance with successively deleting the  
7     first elements of data, a density of a second element of data  
8     remaining on the screen by decreasing a component of the  
9     second element of data.

1           22. A computer-readable medium encoded with a program  
2     for controlling data display operations, said program  
3     comprising the functions of:

4           successively deleting elements of data from a screen of a  
5     display unit; and

6           controlling respective time intervals to be successively  
7     shorter during which the elements of data are successively  
8     deleted.

1           23. A computer-readable medium encoded with a program  
2     for controlling data display operations, said program  
3     comprising the functions of:

4           successively restoring first elements of data to a screen  
5     of a display unit; and

6           increasing, in accordance with successively restoring the  
7     first elements of data, a density of a second element of data  
8     previously restored to the screen by increasing a component of  
9     the second element of data.

1           24. A computer-readable medium encoded with a program  
2     for controlling data display operations, said program  
3     comprising the functions of:

4           successively restoring elements of data to a screen of a  
5     display unit; and

controlling respective time intervals to be successively longer during which the elements of data are successively restored to the screen.

25. A display controller for data control during screen display operations, said controller comprising:

a deleting unit that successively deletes first elements of data from a screen of a display unit; and

a density control unit that, in accordance with successively deleting the first elements of data, varies a density of a second element of data remaining on the screen by decreasing a component of the second element of data.

26. A display controller for data control during screen display operations, said controller comprising:

a deleting unit that successively deletes elements of data from a screen of a display unit; and

a speed control unit that controls respective time intervals to be successively varied during which the elements of data are successively deleted.

27. A display controller for data control during screen display operations, said controller comprising:

a restoring unit that successively restores first elements of data to a screen of a display unit; and

a density control unit that, in accordance with successively restoring the first elements of data, varies a density of a second element of data previously restored to the screen by increasing a component of the second element of data, while said second elements of data are being rearranged.

28. A display controller for data control during screen display operations, said controller comprising:

a restoring unit that successively restores elements of data to a screen of a display unit; and



5        a speed control unit that controls respective time  
6 intervals to be successively varied during which the elements  
7 of data are successively restored to the screen.

1        29. A computer-readable medium encoded with a program  
2 for controlling data display operations, said program  
3 comprising the functions of:  
4        successively deleting first elements of data from a  
5 screen of a display unit; and  
6        varying, in accordance with successively deleting the  
7 first elements of data, a density of a second element of data  
8 remaining on the screen by varying a component of the second  
9 element of data.

10       30. A computer-readable medium encoded with a program for  
11 controlling data display operations, said program comprising  
12 the functions of:  
13       successively deleting elements of data from a screen of a  
14 display unit; and  
15       controlling respective time intervals to be successively  
16 varied during which the elements of data are successively  
17 deleted.

1       31. A computer-readable medium encoded with a program  
2 for controlling data display operations, said program  
3 comprising the functions of:  
4       successively restoring first elements of data to a screen  
5 of a display unit; and  
6       varying, in accordance with successively restoring the  
7 first elements of data, a density of a second element of data  
8 previously restored to the screen by varying a component of  
9 the second element of data.

1       32. A computer-readable medium encoded with a program  
2 for controlling data display operations, said program  
3 comprising the functions of:

4            successively restoring elements of data to a screen of a  
5 display unit; and  
6            controlling respective time intervals to be successively  
7 varied during which the elements of data are successively  
8 restored to the screen.

1            33. A method for controlling data display operations,  
2 the method comprising:

3            detecting a position on a screen of a display unit, the  
4 position being indicated by a pointing operation;

5            successively deleting first elements of data from a  
6 specified area of the screen, and rearranging second elements  
7 of data remaining in the specified area, to provide an  
8 appearance that the second elements of data are gradually  
9 withdrawn from the specified area at the indicated position;  
10 and

11            reducing, in accordance with successively deleting the  
12 first elements of data, the density of a second element of  
13 data remaining in the specified area by decreasing a component  
14 of the second element of data, while said second elements of  
15 data are being rearranged.

1            34. The method as claimed in claim 33, further  
2 comprising displaying a predetermined image at a specified  
3 position on the screen when all the second elements of data  
4 have been deleted as first elements of data.

1            35. A method for controlling data display operations,  
2 the method comprising:

3            detecting a position on a screen of a display unit, the  
4 position being indicated by a pointing operation;

5            successively deleting first elements of data from a  
6 specified area of the screen, and rearranging second elements  
7 of data remaining in the specified area, to provide an  
8 appearance that the second elements of data are gradually

9 withdrawn from the specified area at the indicated position;  
10 and  
11 controlling respective time intervals to be successively  
12 shorter during which the first elements of data are  
13 successively deleted.

1 36. The method as claimed in claim 35, further  
2 comprising displaying a predetermined image at a specified  
3 position on the screen when all the second elements of data  
4 have been deleted as first elements of data.

1 37. A method for controlling data display operations,  
2 the method comprising:  
3 successively deleting first elements of data from a  
4 screen of a display unit; and  
5 reducing, in accordance with successively deleting the  
6 first elements of data, a density of a second element of data  
7 remaining on the screen by decreasing a component of the  
8 second element of data.

1 38. A method for controlling data display operations,  
2 the method comprising:  
3 successively deleting elements of data from a screen of a  
4 display unit; and  
5 controlling respective time intervals to be successively  
6 shorter during which the elements of data are successively  
7 deleted.

1 39. A method for controlling data display operations,  
2 the method comprising:  
3 successively restoring first elements of data to a screen  
4 of a display unit; and  
5 increasing, in accordance with successively restoring the  
6 first elements of data, a density of a second element of data  
7 previously restored to the screen by increasing a component of  
8 the second element of data.

1        40. A method for controlling data display operations,  
2 the method comprising:  
3        successively restoring elements of data to a screen of a  
4 display unit; and  
5        controlling respective time intervals to be successively  
6 longer during which the elements of data are successively  
7 restored to the screen.

1        41. A method for controlling data display operations,  
2 the method comprising:  
3        successively deleting first elements of data from a  
4 screen of a display unit; and  
5        varying, in accordance with successively deleting the  
6 first elements of data, a density of a second element of data  
7 remaining on the screen by varying a component of the second  
8 element of data.

1        42. A method for controlling data display operations,  
2 the method comprising:  
3        successively deleting elements of data from a screen of a  
4 display unit; and  
5        controlling respective time intervals to be successively  
6 varied during which the elements of data are successively  
7 deleted.

1        43. A method for controlling data display operations,  
2 the method comprising:  
3        successively restoring first elements of data to a screen  
4 of a display unit; and  
5        varying, in accordance with successively restoring the  
6 first elements of data, a density of a second element of data  
7 previously restored to the screen by increasing a component of  
8 the second element of data.

44. A method for controlling data display operations,  
the method comprising:  
successively restoring elements of data to a screen of a  
display unit; and  
controlling respective time intervals to be successively  
varied during which the elements of data are successively  
restored to the screen.